FEED MANAGEMENT

Tracking Study Of Industry Suppliers

April 1987

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FEED MANAGEMENT TRACKING STUDY OF INDUSTRY SUPPLIERS

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April 1987

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The purpose of this survey was to approximate the relative number of U.S. feed plant customers served by suppliers of each of a large number of products - updating much of the similar information obtained in 1981.

SURVEY METHOD

Sample Selection: The sample was computer-extracted by nth name selection from the Feed Management May 1986 BPA qualified U.S. circulation list classified as (a) Feed Manufacturers Formulating Feed For Sale, and (b) Livestock/Poultry Producers Manufacturing/Mixing Feed For Own Use. The list was arranged in zip code sequence during the sample extraction.

Sample Size:

Number in mailing sample....	800
Number of returns.....	451
Number of usable returns....	427
Number of unusable returns..	24
Percent response.....	56.4%

Questionnaire Design: The questionnaire, near the back of this report, was designed to obtain the information that the Feed Management staff felt was most needed. The order, arrangement, and wording of the questions were guided by generally accepted mail survey technique.

Mailing Procedure: Computer printout control cards containing the survey names and other information were numbered consecutively. Each questionnaire mailed was also numbered to match the number assigned the recipient on the card.

The first mailing went out June 3rd 1986. On June 19th a post card reminder was sent to each person on the sample list.

A follow-up questionnaire was mailed to all non-respondents on July 2nd. About a week later a second post card reminder went out to all non-respondents.

A third questionnaire (second follow-up) identical to those in the earlier mailings went out to second mailing non-respondents on July 22nd.

Tabulation and Report Writing: The survey returns were tabulated by Analytical Computer Service, Inc., Chicago, and by the Watt Publishing Company Research Section which wrote this report.

READERS'* FEED BUSINESS ACTIVITIES

	Percent of Readers Reporting
Respondents..	427
Feed and/or premix manufacturer.....	89%
Primarily formulator (manufacturer) of feed for SALE.....	65%
Primarily livestock or poultry producer manufacturing feed for OWN USE.....	27%
Swine producer.....	19%
Beef cattle producer.....	11%
Dairy cattle producer.....	2%
Egg producer or pullet grower.....	7%
Broiler producer.....	4%
Turkey producer.....	4%
Other.....	7%

*"Readers" refer to the approximately 10,812 names on the Feed Management May 1986 BPA qualified circulation list classified as Feed Manufacturers Formulating Feed For Sale, and Livestock/Poultry Producers Manufacturing/Mixing Feed For Own Use.

SIZE OF PRODUCERS' LIVESTOCK AND POULTRY OPERATIONS AT SURVEY TIME

Number of HOGS & PIGS On Hand

	Percent of Swine Producers Reporting
Respondents..	73
10,000 or more hogs & pigs.....	8%
4,000 - 9,999 hogs & pigs.....	27%
2,000 - 3,999 hogs & pigs.....	32%
1,000 - 1,999 hogs & pigs.....	22%
Under 1,000 hogs & pigs.....	11%

Average number of hogs & pigs on hand, per reader having any..... 4,200 head

Number of BEEF Cattle & Calves On Hand

	Percent of Beef Cattle Producers Reporting
Respondents..	41
1,000 or more beef cattle & calves....	37%
300 - 999 beef cattle & calves.....	19%
100 - 299 beef cattle & calves.....	29%
Under 100 beef cattle & calves.....	15%

Average number of beef cattle & calves on hand, per reader having any..... 1,350 head

Number of DAIRY Cattle & Calves On Hand

	Among Readers Who Have Dairy Cattle, Percent Reporting
Respondents..	7*
500 or more dairy cattle & calves.....	43%
300 - 499 dairy cattle & calves.....	43%
Under 300 dairy cattle & calves.....	14%

Average number of dairy cattle & calves on hand, per reader having any..... 560 head

Number of LAYERS & PULLETS On Hand

	Among Egg Producers Or Pullet Growers, Percent Reporting
Respondents..	18**
1,000,000 or more layers & pullets....	11%
400,000 - 999,999 layers & pullets....	28%
50,000 - 399,999 layers & pullets.....	39%
Under 50,000 layers & pullets.....	22%

Average number of layers and pullets on hand, per reader having any..... 493,000 head

*Percentages and averages of this base are not projectable.
**Percentages and averages of this base should be viewed with more than usual caution.

Number of BROILERS and Broiler CHICKS On Hand

	Percent of Broiler Producers Reporting
Respondents..	13*
5,000,000 or more broilers & chicks....	31%
3,000,000 - 4,999,999 broilers & chicks	23%
250,000 - 2,999,999 broilers & chicks..	23%
Under 250,000 broilers & chicks.....	23%

Average number of broilers and broiler chicks on hand, per reader having any..... 3,400,000 head

Number of TURKEYS & POULTS On Hand

	Percent of Turkey Producers Reporting
Respondents..	13*
1,000,000 or more turkeys & poults.....	23%
250,000 - 999,999 turkeys & poults.....	23%
40,000 - 249,999 turkeys & poults.....	31%
Under 40,000 turkeys & poults.....	23%

Average number of turkeys and poults on hand, per reader having any..... 347,000 head

*Percentages and averages of this base should be viewed with more than usual caution.

QUANTITY OF FEED PROCESSED PER PLANT

"About how much feed did this plant manufacture in 1985?"

	Percent of Feed Manufacturers* Reporting
Respondents..	400
100,000 or more tons.....	19%
50,000 through 99,999 tons....	12%
25,000 through 49,999 tons....	15%
10,000 through 24,999 tons....	15%
1,000 through 9,999 tons.....	32%
Under 1,000 tons.....	7%

*In this report, "feed manufacturers" refers to individual readers who confirmed in this survey that their companies or farms manufacture or mix feed.

For which class(es) of animal(s) do you manufacture feed?"

	Among Manufacturers of Feed Mainly For SALE, Percent Reporting	Among Manufacturers of Feed Mainly For Own USE, Percent Reporting
Respondents..	309	155
Swine.....	83%	52%
Beef cattle.....	81%	32%
Dairy cattle.....	77%	5%
Layers or pullets.....	67%	26%
Broilers.....	43%	17%
Turkeys.....	39%	8%
Fish.....	17%	-
Specialty feed.....	41%	-
Pet food.....	30%	-
Other.....	16%	2%

Part I - FEED INGREDIENTS

"Which companies SUPPLIED the following feed INGREDIENTS to your feed manufacturing plant in 1985?"

ANTIBIOTICS (THERAPEUTIC OR GROWTH PROMOTING)

Percent of (384 answering) Feed Manufacturers That Used Any For . . .

Swine	Cattle	Poultry
91%	90%	89%

Among Feed Manufacturers That Used Antibiotics, Percent Reporting For . . .

Swine		Cattle		Poultry	
Respondents..	265		228		177
Pfizer	76%	Elanco	70%	Pfizer	64%
American Cyanamid	75%	American Cyanamid	69%	American Cyanamid	54%
Elanco	72%	Pfizer	62%	Elanco	48%
Tuco	56%	Tuco	45%	Salsbury Laboratories	42%
SmithKline	46%	Roche Chemical	32%	A.L. Laboratories	34%
A.L. Laboratories	30%	International Minerals & Chemical	29%	Roche Chemical	33%
Salsbury Laboratories	29%	SmithKline	21%	International Minerals & Chemical	32%
International Minerals & Chemical	25%	MSD Agvet	15%	SmithKline	32%
Roche Chemical	25%	Rhone Poulenc	14%	Tuco	24%
Hoechst-Roussel Agri-Vet	21%	Salsbury Laboratories	13%	Hoechst-Roussel Agri-Vet	20%
SDS Biotech	17%	SDS Biotech	10%	MSD Agvet	18%
MSD Agvet	11%	Hoechst-Roussel Agri-Vet	9%	Rhone Poulenc	18%
Rhone Poulenc	10%	A.L. Laboratories	8%	Ceva Laboratories	15%
Ceva Laboratories	8%	Ceva Laboratories	6%	SDS Biotech	9%
Other	5%	Other	4%	Other	7%
Average number of suppliers per user plant	5.1	Average number of suppliers per user plant	4.1	Average number of suppliers per user plant	4.5

ANTICOCCIDIAL AGENTS

Percent of (335 answering) feed manufacturers that used any... 58%

	Among Feed Manufacturers That Used Anticoccidial Agents, Percent Reporting
Respondents..	195
Elanco	59%
MSD Agvet	26%
Roche Chemical	25%
American Cyanamid	24%
Hoechst-Roussel Agri-Vet	15%
Agri-Bio	13%
Rhone Poulenc	13%
Other	10%

Average number of suppliers per user plant..... 1.9

BUFFERS

Percent of (362 answering) feed manufacturers that used any... 55%

	Among Feed Manufacturers That Used Buffers, Percent Reporting
Respondents..	199
Church & Dwight.....	77%
FMC.....	18%
Stauffer Chemical.....	15%
Tenneco.....	13%
Other.....	13%

Average number of suppliers per user plant..... 1.4

CALCIUM SOURCES

Percent of (367 answering) feed manufacturers that used any... 86%

	Among Feed Manufacturers That Used Calcium Sources, Percent Reporting
Respondents..	317
Calcium Carbonate	42%
Oyster Shell Products	31%
Limestone Products	27%
Iowa Limestone	22%
American Cyanamid	18%
Texasgulf Chemicals	9%
U.S. Gypsum	5%
Southeastern Minerals	3%
*W. S. Frey	1%
*Linwood Stone	1%
Seaboard Supply	1%
*Southern Materials Corp	1%
*Tonk Inc	1%
*Included in premix	1%
*Other (mentioned once or twice each)	15%
Other, not specified	1%

Average number of suppliers per user plant..... 1.8

*Written-in by respondents.

CHOLINE

Percent of (334 answering) feed manufacturers that used any... 51%

	Among Feed Manufacturers That Used Choline, Percent Reporting
Respondents..	171
Syntex Agribusiness	32%
Thompson Hayward	31%
Cholineco (Nutribasics)	27%
Duphar Nutrition	15%
*Nutrius	8%
*Chinook	5%
*Hoffmann-La Roche	3%
*IMC	2%
*Included in premix, basemix	2%
*Other (mentioned once or twice each)	10%

Average number of suppliers per user plant.....1.3

*Written-in by respondents.

FEED FLAVORS

Percent of (365 answering) feed manufacturers that used any... 52%

	Among Feed Manufacturers That Used Feed Flavors, Percent Reporting
Respondents..	189
Feed Flavors.....	62%
Kemin Industries.....	26%
Agrimerica.....	22%
Quali Tech.....	9%
Far-Mor Flavor.....	6%
Biocon.....	6%
*Alltech.....	4%
*Other (mentioned once or twice each)..	12%

Average number of suppliers per user plant..... 1.5

*Written-in by respondents.

LYSINE

Percent of (335 answering) feed manufacturers that used any... 51%

	Among Feed Manufacturers That Used Lysine, Percent Reporting
Respondents..	170
BioKyowa	56%
Heartland Lysine	39%
Miwon	18%
Toray	4%
*Included in premix, basemix	2%
*Other (mentioned once or twice each)	10%
Other, not specified	2%

Average number of suppliers per user plant 1.3

*Written-in by respondents.

MAGNESIUM PRODUCTS

Percent of (325 answering) feed manufacturers that used any... 60%

	Among Feed Manufacturers That Used Magnesium Products, Percent Reporting
Respondents..	196
Basic Chemicals.....	41%
Baymag Plant.....	28%
Martin Marrieta.....	18%
National Magnesia Chemicals.....	9%
*Magox.....	2%
*Eastern Minerals.....	2%
*Included in premix, basemix.....	2%
*Other (mentioned once or twice each)..	14%
Other, not specified.....	3%

Average number of suppliers per user plant..... 1.2

*Written-in by respondents.

METHIONINE PRODUCTS

Percent of (335 answering) Feed Manufacturers That Used Any . . .	
In DRY Form	In LIQUID Form
56%	10%

Among Feed Manufacturers That Used Methionine, Percent Reporting For . . .			
Dry		Liquid	
Respondents..	177		30
Degussa.....	48%	Monsanto.....	63%
Monsanto.....	44%	Degussa.....	48%
Rhone-Poulenc...	27%	Rhone-Poulenc...	13%
Other.....	6%	Other.....	3%
Average number of suppliers per user plant.....	1.2	.....	1.2

MICROBIAL PRODUCTS

Percent of (322 answering) feed manufacturers that used any... 28%

	Among Feed Manufacturers That Used Microbial Products, Percent Reporting
Respondents..	90
Pioneer Hi-Bred Int'l.....	29%
Quali Tech.....	29%
Chr. Hansen's Laboratory.....	14%
Miles Laboratories.....	9%
*Alltech.....	9%
Medipharm.....	8%
*Other (mentioned once or twice each)....	18%
Other, not specified.....	2%

Average number of suppliers per user plant..... 1.2

*Written-in by respondents.

MILK PRODUCTS

Percent of (365 answering) feed manufacturers that used any... 68%

	Among Feed Manufacturers That Used Milk Products, Percent Reporting
Respondents..	249
Land O'Lakes	42%
Milk Specialties	31%
Merrick Foods	26%
Kraft	10%
Foremost McKesson	5%
Borden Chemical	5%
*National Vitamin	4%
Tri Mutual	3%
*Carnation	2%
Nutra-Melk	2%
*Purina	2%
*Royal Milk	2%
*Beatrice	1%
*Calva Lac	1%
*Northland	1%
*Wayne	1%
*Other (mentioned once or twice each)..	13%
Other, not specified	2%

Average number of suppliers per user plant..... 1.5

*Written-in by respondents.

MOLD INHIBITORS

Percent of (351 answering) feed manufacturers that used any... 51%

	Among Feed Manufacturers That Used Mold Inhibitors, Percent Reporting
Respondents..	179
Kemin Industries	37%
Agrimerica	20%
Anitox	16%
Monsanto	15%
Syntex Agribusiness	8%
Cambridge Naremco	6%
Eastman Chemical	6%
*Alltech	2%
*Cal-Pro	2%
*Cargill	2%
*Chemland	2%
*H. B. Wilson	2%
*Other (mentioned once or twice each)	15%
Other, not specified	1%

Average number of suppliers per user plant..... 1.3

*Written-in by respondents.

NIACIN PRODUCTS

Percent of (338 answering) feed manufacturers that used any... 40%

	Among Feed Manufacturers That Used Niacin Products, Percent Reporting
Respondents..	134
Lonza	47%
Degussa	37%
Nepera	9%
*Hoffmann-La Roche	4%
*Included in premix	7%
*Other (mentioned once or twice each)	13%
Other, not specified	2%

Average number of suppliers per user plant..... 1.2

*Written-in by respondents.

PELLET BINDERS

Percent of (357 answering) feed manufacturers that used any... 45%

	Among Feed Manufacturers That Used Pellet Binders, Percent Reporting
Respondents..	161
American Colloid	40%
Reed Lignin	34%
Hess & Clark	16%
Masonite	15%
Cra Vac	10%
Hercules	9%
*Flambeau	4%
*Oil Dri	3%
*Bentonite	2%
Federal Ore & Chemicals	2%
*Other (mentioned once or twice each)	12%
Other, not specified	2%

Average number of suppliers per user plant..... 1.5

*Written-in by respondents.

PHOSPHORUS

Percent of (373 answering) feed manufacturers that used any... 86%

(a) "If you use any phosphorus . . ."

(1) "Which form(s) do you use?"

	Among Feed Manufacturers That Used Phosphorus, Percent Reporting
Respondents..	303
Dicalcium Phosphate.....	83%
Monocalcium Phosphate.....	28%
Defluorinated.....	21%

(2) "From which supplier(s)?"

	Among Feed Manufacturers That Used Phosphorus, Percent Reporting
Respondents..	286
International Minerals & Chemicals...	49%
Occidental Chemical Ag. Products.....	34%
American Cyanamid.....	25%
Texasgulf Chemicals.....	15%
Amax Chemical.....	12%
Farmland Industries.....	9%
C. F. Industries.....	8%
Becker.....	4%
Other.....	14%

Average number of suppliers per user plant.... 1.7

SALT MIXES

Percent of (376 answering) feed manufacturers that used any... 87%

	Among Feed Manufacturers That Used Salt Mixes, Percent Reporting
Respondents..	328
Morton Salt	36%
Cargill	34%
American Salt	24%
Diamond Crystal Salt	18%
Carey Salt	17%
Hardy Salt	14%
*International Salt	5%
Sifto Salt	5%
*United Salt	4%
*GSL	2%
*Leslie	2%
*Other (mentioned once or twice each)	7%
Other, not specified	1%

Average number of suppliers per user plant..... 1.7

*Written-in by respondents.

SULFA PRODUCTS

Percent of (359 answering) feed manufacturers that used any... 59%

	Among Feed Manufacturers That Used Sulfa Products, Percent Reporting
Respondents.. 212	
American Cyanamid.....	67%
Elanco.....	50%
Pfizer.....	29%
SDS Biotech.....	10%
Other.....	6%

Average number of suppliers per user plant..... 1.6

TRACE MINERALS/VITAMIN PREMIXES

Percent of (359 answering) feed manufacturers that used any... 83%

Among Feed Manufacturers
That Used Trace Minerals/Vitamin Premixes,
Percent Reporting

Respondents..	296
Roche Chemical	25%
Nutrius	16%
Prince Agri Products	13%
Carl S. Akey	11%
Southeastern Minerals	11%
BASF Wyandotte	10%
Feed Specialties	10%
Nutribasics	10%
Cadco	9%
Pfizer	8%
Quali Tech	7%
Duphar Nutrition	5%
Central Soya	5%
Dawes Laboratories	4%
MSD Agvet	3%
Rhone Poulenc	3%
Henwood Feed Additives	2%
*Marshall Minerals	2%
Leo Cook	1%
Seaboard Supply	1%
*Other (mentioned once or twice each)	24%
Other, not specified	3%

Average number of suppliers per user plant..... 1.8

*Written-in by respondents.

VITAMINS A,D, and/or E

Percent of (333 answering) feed manufacturers that used any... 79%

	Among Feed Manufacturers That Used Vitamins A,D, and/or E, Percent Reporting
Respondents..	263
Roche Chemical	46%
Pfizer	16%
BASF Wyandotte	16%
A. L. Laboratories	14%
Rhone Poulenc	12%
Nutrius	11%
Duphar Nutrition	6%
Dawes Laboratories	5%
*Farmland	3%
MSD Agvet	3%
*Carl Akey	2%
*Nutribasics	2%
Fallek Chemical	1%
*NutraBlend	1%
Helm New York Chemical	1%
*Included in premix	5%
*Other (mentioned once or twice each)...	15%

Average number of suppliers per user plant..... 1.6

*Written-in by respondents.

WORMING COMPOUNDS

Percent of (358 answering) feed manufacturers that used any... 69%

	Among Feed Manufacturers That Used Worming Compounds, Percent Reporting
Respondents..	246
Pfizer	47%
American Cyanamid	43%
Elanco	26%
Hoechst-Roussel Agri-Vet	19%
Bayvet	15%
MSD Agvet	15%
SDS Biotech	14%
SmithKline	12%
Pitman-Moore	6%
Other	9%

Average number of suppliers per user plant..... 2.1

Part II - EQUIPMENT

"Which companies made the following EQUIPMENT used in your feed plant"

MILL CONSTRUCTION and/or DESIGN

Percent of (348 answering) feed manufacturers that hired any... 46%

Among Feed Manufacturers
That Hired Mill Construction and/or Design,
Percent Reporting

Respondents.. 159

Sprout-Waldron	45%
Younglove Construction	12%
Todd & Sargent	10%
Hough Bros	9%
T. E. Ibberson	8%
*Mix-Mill	2%
*Local, Independent, Own Contractor	3%
*Other (mentioned once or twice each)	41%
Other, not specified	4%

Average number of suppliers per plant hiring any..... 1.3

*Written-in by respondents.

SCALES; TRUCK, RAIL, RECEIVING

Percent of (375 answering) feed manufacturers that have any... 85%

Among Feed Manufacturers
That Have Truck, Rail, and/or Receiving Scales,
Percent Reporting

Respondents.. 318

Fairbanks..... 56%

Howe Richardson..... 40%

Toledo Scale..... 29%

Cardinal..... 9%

Other..... 11%

Average number of suppliers per user plant..... 1.5

BUCKET ELEVATORS

Percent of (332 answering) feed manufacturers that have any... 83%

	Among Feed Manufacturers That Have Bucket Elevators, Percent Reporting
Respondents..	275
Sprout-Waldron	25%
Hayes & Stolz	20%
Universal Industries	18%
Sweet Mfg	13%
Gerber Industries	8%
Shelby Mfg	8%
Huss & Schlieper	4%
*York	4%
*Howell	2%
*Hunter	1%
*Hutchinson	1%
*Kelly-Duplex	1%
*Other (mentioned once or twice each)	14%
Other, not specified	7%

Average number of suppliers per user plant..... 1.3

*Written-in by respondents.

ELEVATOR BUCKETS

Percent of (290 answering) feed manufacturers that have any... 77%

	Among Feed Manufacturers That Have Elevator Buckets, Percent Reporting
Respondents..	222
Dura-Bucket	47%
Maxi-Lift	23%
Tapco	23%
K. I. Willis (Superior)	17%
Cargill	6%
*Screw Conveyor	2%
*York	1%
*Other (mentioned once or twice each)	9%
Other, not specified	5%

Average number of suppliers per user plant..... 1.3

*Written-in by respondents.

FREE STANDING GRAIN BINS

Percent of (351 answering) feed manufacturers that have any... 74%

	Among Feed Manufacturers That Have Free Standing Grain Bins, Percent Reporting
Respondents..	260
Butler Mfg	43%
Brock Mfg	22%
Read Steel Products	14%
Behlen	12%
Columbian	12%
Chicago Eastern	7%
Long Mfg	5%
Leach Mfg	3%
*GSI	2%
*Chief	2%
*MFS	2%
*Superior	2%
*Circle	1%
*Local, Custom built	5%
*Other (mentioned once or twice each)	15%
Other, not specified	2%

Average number of suppliers per user plant..... 1.5

*Written-in by respondents.

BIN LEVEL CONTROLS

Percent of (337 answering) feed manufacturers that have any... 54%

	Among Feed Manufacturers That Have Bin Level Controls, Percent Reporting
Respondents..	182
Bindicator.....	80%
Monitor Mfg.....	13%
Dickey-john.....	8%
Jenoff.....	4%
Other.....	6%

Average number of suppliers per user plant..... 1.1

SCREW CONVEYORS

Percent of (319 answering) feed manufacturers that have any... 75%

	Among Feed Manufacturers That Have Screw Conveyors, Percent Reporting
Respondents..	239
Screw Conveyor	44%
Sprout-Waldron	23%
Essmueller	21%
Prater Industries	10%
Shelby Mfg	7%
Duplex Mill & Mfg	5%
Ehrsam Mfg	4%
Union Iron Works	3%
Chantland	2%
*Sweet	1%
*Other (mentioned once or twice each)	15%
Other, not specified	8%

Average number of suppliers per user plant..... 1.4

*Written-in by respondents.

DRAG FLIGHT CONVEYORS

Percent of (307 answering) feed manufacturers that have any... 46%

	Among Feed Manufacturers That Have Drag Flight Conveyors, Percent Reporting
Respondents..	142
Essmueller	44%
Sprout-Waldron	26%
Jacobson Intl	7%
Maxi-Lift	6%
Buhler-Miag	6%
*Screw Conveyor	6%
*Super Flo	4%
*Schlagel	2%
*Built own, Custom built	3%
*Other (mentioned once or twice each)	13%
Other, not specified	5%

Average number of suppliers per user plant..... 1.2

*Written-in by respondents.

ROLLER MILLS

Percent of (335 answering) feed manufacturers that have any... 51%

	Among Feed Manufacturers That Have Roller Mills, Percent Reporting
Respondents..	171
Rosskamp	49%
Sprout-Waldron	18%
Duplex Mill	6%
*Ferrell-Ross	6%
*Henke	4%
Buhler-Miag	2%
*Denver	2%
*Automatic	2%
*Other (mentioned once or tweice each)..	12%
Other, not specified	7%

Average number of suppliers per user plant..... 1.1

*Written-in by respondents.

HAMMERMILLS

Percent of (347 answering) feed manufacturers that have any... 84%

	Among Feed Manufacturers That Have Hammermills, Percent Reporting
Respondents..	291
Jacobson Machine	41%
Sprout-Waldron	24%
Prater Industries	18%
Champion Products	9%
Schutte Pulverizer	5%
*Mix Mill	5%
Duplex Mill & Mfg	4%
Jay Bee Mfg	4%
*Modern Mill	2%
*Bryant	1%
*Ross	1%
*Weigh Tronix	1%
*Other (mentioned once or twice each)	10%
*Other, not specified	1%

Average number of suppliers per user plant..... 1.3

*Written-in by respondents.

MIXERS

Percent of (332 answering) feed manufacturers that have any...90%

	Among Feed Manufacturers That Have Mixers, Percent Reporting
Respondents..	298
Sprout-Waldron	19%
Hayes & Stolz	17%
Marion	13%
Duplex Mill & Mfg	13%
Scott	13%
Wenger Mfg	8%
Prater Industries	7%
*Jacobson	3%
*Davis	2%
*Ross	2%
Rapids Machinery	1%
*Butler	1%
*Mix Mill	1%
*Modern Mill	1%
*Own make, custom made	2%
*Other (mentioned once or twice each)	14%
Other, not specified	4%

Average number of suppliers per user plant..... 1.2

*Written-in by respondents.

PELLET MILLS

Percent of (356 answering) feed manufacturers that have any... 54%

	Among Feed Manufacturers That Have Pellet Mills, Percent Reporting
Respondents..	192
California Pellet Mill....	73%
Sprout-Waldron.....	33%
Landers Machine.....	11%
Buhler-Miag.....	2%
Other.....	3%

Average number of suppliers per user plant..... 1.2

PELLET MILL DIES

Percent of (341 answering) feed manufacturers that have any... 54%

	Among Feed Manufacturers That Have Pellet Mill Dies, Percent Reporting
Respondents..	179
California Pellet Mill.....	76%
Sprout-Waldron.....	33%
*Landers.....	8%
Muench.....	7%
Technostaal.....	7%
*Harlan Mfg.....	6%
Esbjerg Matador Maskiner.....	3%
Simon Barron.....	3%
Buhler-Miag.....	2%
Dorssers.....	2%
*Other (mentioned once or twice each)...	2%
Other, not specified.....	2%

Average number of suppliers per user plant..... 1.5

*Written-in by respondents.

COOKERS and/or EXTRUDERS

Percent of (334 answering) feed manufacturers that have any... 10%

Among Feed Manufacturers
That Have Cookers and/or Extruders,
Percent Reporting

Respondents.. 32

Insta-Pro	44%
Wenger Mfg	31%
Sprout-Waldron	22%
Anderson Int'l	16%
Other	6%

Average number of suppliers per user plant..... 1.2

BAGGING SYSTEMS

Percent of (343 answering) feed manufacturers that have any... 55%

	Among Feed Manufacturers That Have Bagging Systems, Percent Reporting
Respondents..	187
Howe Richardson	57%
Bemis	18%
Union Camp	18%
Toledo Scale	9%
Chantland	4%
McCullough	2%
*Dave Fischbein Co	2%
*St. Regis	2%
Parsons Pkg. Systems	1%
*Own make	3%
*Other (mentioned once or twice each)	4%
Other, not specified	6%

Average number of suppliers per user plant..... 1.3

*Written-in by respondents.

BAG CLOSERS and/or SEWING MACHINES

Percent of (344 answering) feed manufacturers that have any... 63%

	Among Feed Manufacturers That Have Bag Closers and/or Sewing Machines, Percent Reporting
Respondents..	217
Fischbein.....	58%
Union Special.....	43%
Doboy.....	12%
American-Newlong.....	4%
McCullough.....	3%
Other.....	3%

Average number of suppliers per user plant..... 1.2

DUST CONTROL SYSTEMS

Percent of (322 answering) feed manufacturers that have any... 40%

	Among Feed Manufacturers That Have Dust Control Systems, Percent Reporting
Respondents..	130
Sprout-Waldron	29%
MAC Equipment	28%
CEA-Carter Day	17%
Kice Metal Products	15%
Buhler-Miag	6%
Gerber	2%
*Local, Own make	5%
*Other (mentioned once or twice each)	11%
Other, not specified	8%

Average number of suppliers per user plant..... 1.2

*Written-in by respondents.

TRUCK BODIES

Percent of (347 answering) feed manufacturers that have any..... 77%

Among Feed Manufacturers That Have Truck Bodies, Percent Reporting For . . .

	Truck-Mounted		Trailer
Respondents..	200		99
Bulk Equipment.....	27%	Bulk Equipment.....	42%
Fontaine.....	19%	Fontaine.....	32%
Henderson.....	19%	Pamco.....	18%
Sudenga.....	18%	Henderson.....	14%
Pamco.....	17%	*Globe.....	10%
Simonsen.....	12%	*Ledwell.....	8%
Dodgen.....	6%	*Walinga.....	7%
*Walinga.....	5%	*Clark.....	6%
*Clark.....	4%	Dodgen.....	6%
*Smeal.....	4%	*Feed Liners.....	5%
*FMC.....	2%	*FMC.....	3%
*Harsh.....	2%	Simonsen.....	3%
*Krause.....	2%	Sudenga.....	1%
*Ledwell.....	2%	*Other (mentioned once or twice each).....	23%
*Butler.....	2%		
*Globe.....	2%		
*Other (mentioned once or twice each).....	17%		
Other, not specified.....	4%		
Average number of suppliers per user plant.....	1.5	.....	1.7

*Written-in by respondents.

Part III - PUBLICATIONS RECEIVED

"Which of the following publications do you receive regularly?"

	Percent of Feed Manufacturers Reporting
Respondents..	387
Feedstuffs.....	77%
Feed & Grain marketing.....	35%
Feed & Grain Times.....	35%

APPENDIX

1. Questionnaire

2. Index

Note: If this company has more than one feed manufacturing establishment, please answer only for the feed plant where you spend the largest part of your feed mill time.

START HERE

Please check **each** of the following items that help describe your, or your company's, feed business activities.

- [ ] Feed and/or premix manufacturer
- [ ] Primarily formulator (manufacturer) of feed for **sale**
- [ ] Primarily livestock or poultry producer manufacturing feed for **own use**
  - [ ] Swine producer _____ (number of hogs & pigs in herd now)
  - [ ] Beef cattle producer _____ (number of beef cattle & calves in herd now)
  - [ ] Dairy cattle producer _____ (number of dairy cattle & calves in herd now)
  - [ ] Egg producer or pullet grower _____ (number of layers & pullets in flock now)
  - [ ] Broiler producer _____ (number of broilers & chicks in flock now)
  - [ ] Turkey producer _____ (number of turkeys & poults in flock now)
  - [ ] Other (please specify) _____

II. About how much feed did this plant manufacture in 1985? (please check)

- [ ] Under 1,000 tons
- [ ] 1,000 through 9,999 tons
- [ ] 10,000 through 24,999 tons
- [ ] 25,000 through 49,999 tons
- [ ] 50,000 through 99,999 tons
- [ ] 100,000 or more tons

III. For which class(es) of animals) do you manufacture feed? (please check all that apply)

	Feed Manufacturer, Mainly For	
	SALE	Own USE
Swine	[ ]	[ ]
Beef cattle	[ ]	[ ]
Dairy cattle	[ ]	[ ]
Layers or pullets	[ ]	[ ]
Broilers	[ ]	[ ]
Turkeys	[ ]	[ ]
Fish	[ ]	[ ]
Specialty feed	[ ]	[ ]
Pet food	[ ]	[ ]
Other	[ ]	[ ]

IV. Which companies **supplied** the following feed **ingredients** to your feed manufacturing plant in 1985? (for each ingredient please **CHECK OFF** ( ) as many companies as apply)

1. **Antibiotics (therapeutic or growth promoting)**

	Swine	Cattle	Poultry
Did not use any	[ ]	[ ]	[ ]
A.L. Laboratories	[ ]	[ ]	[ ]
American Cyanamid	[ ]	[ ]	[ ]
Cevet Laboratories	[ ]	[ ]	[ ]
Elanco	[ ]	[ ]	[ ]
Hoechst-Roussel Agri-Vet	[ ]	[ ]	[ ]
International Minerals & Chemical	[ ]	[ ]	[ ]
MSD Agvet	[ ]	[ ]	[ ]
Pfizer	[ ]	[ ]	[ ]
Rhone Poulenc	[ ]	[ ]	[ ]
Roche Chemical	[ ]	[ ]	[ ]
Seaboury Laboratories	[ ]	[ ]	[ ]
SDS Biotech	[ ]	[ ]	[ ]
Smith-Kline	[ ]	[ ]	[ ]
Other (please specify) _____	[ ]	[ ]	[ ]

2. **Anticoccidial Agents**

- [ ] Did not use any
- [ ] Agri-Bio
- [ ] American Cyanamid
- [ ] Elanco
- [ ] Hoechst-Roussel Agri-Vet
- [ ] Roche Chemical
- [ ] MSD Agvet
- [ ] Rhone Poulenc
- [ ] Other (please specify) _____

3. **Buffers**

- [ ] Did not use any
- [ ] Church & Dwight
- [ ] FMC
- [ ] Stauffer Chemical
- [ ] Tennessee
- [ ] Other (please specify) _____

4. **Calcium Sources**

- [ ] Did not use any
- [ ] American Cyanamid
- [ ] Calcium Carbonate
- [ ] Iowa Limestone
- [ ] Limestone Products
- [ ] Oyster Shell Products
- [ ] Sea Board Supply
- [ ] Southeastern Minerals
- [ ] Texasgulf Chemicals
- [ ] U.S. Gypsum
- [ ] Other (please specify) _____

5. **Choline**

- ☐ Did not use any
- ☐ Cholineco (Nutribasics)
- ☐ Duphar Nutrition
- ☐ Syntex Agribusiness
- ☐ Thompson Hayward
- ☐ Other (please specify) _____

6. **Feed Flavors**

- ☐ Did not use any
- ☐ Agrimerica
- ☐ Biocon
- ☐ Far-Mor Flavor
- ☐ Feed Flavors
- ☐ Kemin Industries
- ☐ Quali Tech
- ☐ Other (please specify) _____

7. **Lysine**

- ☐ Did not use any
- ☐ BioKyowa
- ☐ Heartland Lysine
- ☐ Miwon
- ☐ Toray
- ☐ Other (please specify) _____

8. **Magnesium Products**

- ☐ Did not use any
- ☐ Basic Chemicals
- ☐ Baymag Plant
- ☐ Martin Marrieta
- ☐ National Magnesia Chemicals
- ☐ Other (please specify) _____

9. **Methionine Products**

	Dry	Liquid
Did not use any	☐	☐
Degussa	☐	☐
Monsanto	☐	☐
Rhone-Poulenc	☐	☐
Other (please specify) _____	☐	☐

10. **Microbial Products**

- ☐ Did not use any
- ☐ Chr. Hansen's Laboratory
- ☐ Medipharm
- ☐ Miles Laboratories
- ☐ Pioneer Hi-Bred Int'l.
- ☐ Quali Tech
- ☐ Other (please specify) _____

11. **Milk Products**

- ☐ Did not use any
- ☐ Borden Chemical
- ☐ Foremost McKesson
- ☐ Kraft
- ☐ Land O'Lakes
- ☐ Merrick Foods
- ☐ Milk Specialties
- ☐ Nutra-Milk
- ☐ Tri Mutual
- ☐ Other (please specify) _____

12. **Mold Inhibitors**

- ☐ Did not use any
- ☐ Agrimerica
- ☐ Anitox
- ☐ Cambridge Naremco
- ☐ Eastman Chemical
- ☐ Kemin Industries
- ☐ Monsanto
- ☐ Syntex Agribusiness
- ☐ Other (please specify) _____

13. **Niacin Products**

- ☐ Did not use any
- ☐ Degussa
- ☐ Lonza
- ☐ Nepera
- ☐ Other (please specify) _____

14. **Pellet Binders**

- ☐ Did not use any
- ☐ American Colloid
- ☐ Cra-Vac
- ☐ Federal Ore & Chemicals
- ☐ Hercules
- ☐ Hess & Clark
- ☐ Masonite
- ☐ Reed Lignin
- ☐ Other (please specify) _____

15. **Phosphorus**

- ☐ Did not use any

(a) If you use any phosphorus. . .

(1) Which form(s) do you use? (please check)

- ☐ Defluorinated
- ☐ Dicalcium Phosphate
- ☐ Monocalcium Phosphate

(2) From which supplier(s)? (please check)

- ☐ Amax Chemical
- ☐ American Cyanamid
- ☐ Becker
- ☐ Farmland Industries
- ☐ C.F. Industries
- ☐ International Minerals & Chemicals
- ☐ Occidental Chemical Ag. Products
- ☐ Texasgulf Chemicals
- ☐ Other (please specify) _____

16. **Salt Mixes**

- ☐ Did not use any
- ☐ American Salt
- ☐ Carey Salt
- ☐ Cargill
- ☐ Diamond Crystal Salt
- ☐ Hardy Salt
- ☐ Morton Salt
- ☐ Sifto Salt
- ☐ Other (please specify) _____

17. **Sulfa Products**

- ☐ Did not use any
- ☐ American Cyanamid
- ☐ Elanco
- ☐ Pfizer
- ☐ SDS Biotech
- ☐ Other (please specify) _____

(Feed ingredient suppliers, cont'd.)

18. **Trace Minerals/Vitamin Premixes**

- ☐ Did not use any
- ☐ BASF Wyandotte
- ☐ Cadco
- ☐ Carl S. Akey
- ☐ Central Soya
- ☐ Dawes Laboratories
- ☐ Duphar Nutrition
- ☐ Feed Specialties
- ☐ Henwood Feed Additives
- ☐ Leo Cook
- ☐ Roche Chemical
- ☐ MSD Agvet
- ☐ Nutribasics
- ☐ Nutrius
- ☐ Pfizer
- ☐ Prince Agri Products
- ☐ Quali Tech
- ☐ Rhone Poulenc
- ☐ Seaboard Supply
- ☐ Southeastern Minerals
- ☐ Other (please specify) _____

19. **Vitamins A.D. and/or E**

- ☐ Did not use any
- ☐ A.L. Laboratories
- ☐ BASF Wyandotte
- ☐ Dawes Laboratories
- ☐ Duphar Nutrition
- ☐ Fallek Chemical
- ☐ Helm New York Chemical
- ☐ Roche Chemical
- ☐ MSD Agvet
- ☐ Nutrius
- ☐ Pfizer
- ☐ Rhone Poulenc
- ☐ Other (please specify) _____

20. **Worming Compounds**

- ☐ Did not use any
- ☐ American Cyanamid
- ☐ Bayvet
- ☐ Elanco
- ☐ Hoechst-Roussel Agri-Vet
- ☐ MSD Agvet
- ☐ Pfizer
- ☐ Pitman-Moore
- ☐ SDS Biotech
- ☐ SmithKline
- ☐ Other (please specify) _____

V. Which companies made the following **equipment** used in your feed plant? (please check as many companies as apply)

1. **Mill Construction and/or Design**

- ☐ Did not hire any
- ☐ Hough Bros.
- ☐ Sprout-Waldron
- ☐ T. E. Ibberson
- ☐ Todd & Sargent
- ☐ Younglove Construction
- ☐ Other (please specify) _____

2. **Scales: Truck, Rail, Receiving**

- ☐ Do not have any
- ☐ Cardinal
- ☐ Fairbanks
- ☐ Howe Richardson
- ☐ Toledo Scale
- ☐ Other (please specify) _____

(Equipment suppliers, cont'd.)

3. **Bucket Elevator(s)**

- ☐ Do not have any
- ☐ Gerber Industries
- ☐ Hayes & Stolz
- ☐ Huss & Schlieper
- ☐ Shelby Mfg.
- ☐ Sprout-Waldron
- ☐ Sweet Mfg.
- ☐ Universal Industries
- ☐ Other (please specify) _____

4. **Elevator Buckets**

- ☐ Do not have any
- ☐ Cargill
- ☐ Dura-Bucket
- ☐ Maxi-Lift
- ☐ Tapco
- ☐ K.I. Willis (Superior)
- ☐ Other (please specify) _____

5. **Free Standing Grain Bin(s)**

- ☐ Do not have any
- ☐ Behlen
- ☐ Brock Mfg.
- ☐ Butler Mfg
- ☐ Chicago Eastern
- ☐ Columbian
- ☐ Leach Mfg.
- ☐ Long Mfg.
- ☐ Read Steel Products
- ☐ Other (please specify) _____

6. **Bin Level Control(s)**

- ☐ Do not have any
- ☐ Bindicator
- ☐ Dickey-john
- ☐ Monitor Mfg.
- ☐ Jenoff
- ☐ Other (please specify) _____

7. **Screw Conveyor(s)**

- ☐ Do not have any
- ☐ Chantland
- ☐ Duplex Mill & Mfg.
- ☐ Ehrsam Mfg.
- ☐ Essmueller
- ☐ Prater Industries
- ☐ Screw Conveyor
- ☐ Shelby Mfg.
- ☐ Sprout-Waldron
- ☐ Union Iron Works
- ☐ Other (please specify) _____

8. **Drag Flight Conveyor(s)**

- ☐ Do not have any
- ☐ Buhler-Miag
- ☐ Essmueller
- ☐ Jacobson Intl.
- ☐ Maxi-Lift
- ☐ Sprout-Waldron
- ☐ Other (please specify) _____

9. **Roller Mills**

- ☐ Do not have any
- ☐ Buhler-Miag
- ☐ Duplex Mill
- ☐ Rosskamp
- ☐ Sprout-Waldron
- ☐ Other (please specify) _____

10. **Hammermills** (Equipment suppliers, cont'd.)

- ☐ Do not have any
- ☐ Champion Products
- ☐ Duplex Mill & Machinery
- ☐ Jacobson Machine
- ☐ Jay Bee Mfg.
- ☐ Prater Industries
- ☐ Schutte Pulverizer
- ☐ Sprout-Waldron
- ☐ Other (please specify)

11. **Central Control Panel**

- ☐ Do not have any
- ☐ Automatic Control Electronics
- ☐ Bela-Raven (Norvision)
- ☐ Howe Richardson
- ☐ Repole
- ☐ Sprout-Waldron
- ☐ Sterling Controls
- ☐ Toledo Scale
- ☐ Wisconsin Electric
- ☐ Other (please specify)

12. **Mixers**

- ☐ Do not have any
- ☐ Duplex Mill & Mfg.
- ☐ Hayes & Stolz
- ☐ Marion
- ☐ Prater Industries
- ☐ Ranada Machinery
- ☐ Scott
- ☐ Sprout-Waldron
- ☐ Wenger Mfg.
- ☐ Other (please specify)

13. **Pellet Mills**

- ☐ Do not have any
- ☐ Buhler-Miag
- ☐ California Pellet Mill
- ☐ Landers Machine
- ☐ Sprout-Waldron
- ☐ Other (please specify)

14. **Pellet Mill Dies**

- ☐ Do not have any
- ☐ Buhler-Miag
- ☐ California Pellet Mill
- ☐ Dorsaventz
- ☐ Eastern Marathon Muskingum
- ☐ General Case
- ☐ Muenich
- ☐ Simon Barron
- ☐ Sprout-Waldron
- ☐ Technistaal
- ☐ Other (please specify)

15. **Pellet Mill Controls**

- ☐ Do not have any
- ☐ Bela-Raven (Norvision)
- ☐ Buhler-Miag
- ☐ California Pellet Mill
- ☐ Other (please specify)

16. **Cooker Extruders**

- ☐ Do not have any
- ☐ Anderson Int'l
- ☐ Bela-Raven
- ☐ Sprout-Waldron
- ☐ Wenger Mfg.
- ☐ Other (please specify)

17. **Bagging Systems** (Equipment suppliers, cont'd.)

- ☐ Do not have any
- ☐ Bemis
- ☐ Chantland
- ☐ Howe Richardson
- ☐ McCulloch
- ☐ Parsons Pkg. Systems
- ☐ Toledo Scale
- ☐ Union Camp
- ☐ Other (please specify)

18. **Bag Closer Sewing Machine**

- ☐ Do not have any
- ☐ American-Newlong
- ☐ Doney
- ☐ Fischbein
- ☐ McCulloch
- ☐ Union Special
- ☐ Other (please specify)

19. **Dust Control Systems**

- ☐ Do not have any
- ☐ Buhler-Miag
- ☐ CEA Carter Day
- ☐ Gerber
- ☐ Kice Metal Products
- ☐ MAC Equipment
- ☐ Sprout-Waldron
- ☐ Other (please specify)

20. **Truck Bodies**

- ☐ Do not have any

	Truck Mounted	Trailer
Bulk Equipment	☐	☐
Godden	☐	☐
Fontaine	☐	☐
Henderson	☐	☐
Pemco	☐	☐
Simonsen	☐	☐
Sudenga	☐	☐
Other (please specify)	☐	☐

21. **Agricultural Computer Applications**

- ☐ Do not have any
- ☐ Ag-Format
- ☐ Agricultural Software Consultants
- ☐ Bela-Raven (Norvision)
- ☐ Brill
- ☐ Farmer International
- ☐ Other (please specify)

VI. Which of the following publications do you receive regularly? (please check all that apply)

- ☐ Feed & Grain Marketing
- ☐ Feed & Grain Times
- ☐ Feedstuffs
- ☐ None of above

FEED MANAGEMENT

Mount Morris, Illinois 61054 USA

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